COMPUTATION TESTS

The MBSP book of Basic Math Computation Blackline Masters includes 30 tests, referred to as "sheets" in the Blackline Masters, at each grade level for Grades 1–6. Each test consists of 25 math computation problems representing the yearlong grade-level math computation curriculum. Within each grade level, the type of problems represented on each test remains constant from test to test. For example, each Grade 3 Computation test includes five multiplication facts with factors 0–5 and four multiplication facts with factors 6–9 (as well as other problems). However, the facts that are tested and their position on each test are selected randomly. Other types of problems remain similarly constant on each of the 30 sets within a grade level.

At a given grade level, each weekly test has the same time limit (i.e., the time allowed on the first test of the school year is the same time allowed for every test during the year). See the chart below for the time limit at each grade.

Time Limit for Computation Tests

Grade 1   2 minutes
Grade 2   2 minutes
Grade 3   3 minutes
Grade 4   3 minutes
Grade 5   5 minutes
Grade 6   6 minutes

Computation Skills Assessed by Grade

The list that follows shows the skills represented on the Computation tests for each grade level and the number of problems on each test that assess each skill (in parentheses). Within a grade level, the types of problems and the number of problems of each type remain constant across all 30 tests to ensure equivalent difficulty. However, the specific numerals in the problems vary from test to test, and the order of the problems on each test is randomized.

Grade 1

Addition basic facts (9 problems)
Addition of three numbers (2 problems)
Addition without regrouping (2 problems)
Subtraction basic facts (10 problems)
Subtraction without regrouping (2 problems)

Grade 2

Addition basic facts (7 problems)
Addition without regrouping (3 problems)
Addition with regrouping (2 problems)
Subtraction basic facts (7 problems)
Subtraction without regrouping (3 problems)
or
Subtraction with regrouping (3 problems)

Grade 3

Addition with regrouping (3 problems)
Subtraction with regrouping no 0s (3 problems)
Subtraction with regrouping using 0 (2 problems)
Multiplication basic facts (9 problems)
Multiplication with regrouping (2 problems)
Division basic facts (6 problems)

Grade 4

Addition with regrouping (2 problems)
Subtraction with regrouping (2 problems)
Multiplication basic facts (5 problems)
Multiplication by 1 digit with regrouping (2 problems)
Multiplication by 2 digits (2 problems)
Division basic facts (4 problems)
Division with 1 step (2 problems)
Division with 2 steps (2 problems)
Adding/subtracting simple fractions (2 problems)
Adding/subtracting mixed fractions (2 problems)

Grade 5

Addition with regrouping
    (2 problems)
Subtraction with regrouping
    (2 problems)
Multiplication with multi-digit numbers
    (2 problems)
Division with 1-digit divisor
    (2 problems)
Division with 2-digit divisor
    (2 problems)
Reducing fractions
    (2 problems)
Renaming fractions
    (4 problems)
Add/subtract like fractions
    (4 problems)
Add/subtract unlike fractions
    (3 problems)
Add/subtract decimals
    (2 problems)

Grade 6

Addition with regrouping
    (2 problems)
Subtraction with regrouping
    (2 problems)
Multiplication with multi-digit numbers
    (2 problems)
Division with multi-digit numbers
    (3 problems)
Add/subtract like fractions
    (2 problems)
Add/subtract unlike fractions
    (4 problems)
Multiply/divide fractions
    (4 problems)
Add/subtract decimals
    (2 problems)
Multiply decimals
    (2 problems)
Divide decimals (2 problems)

**Normative Problems Correct Scores
for Basic Math Computation**

Grade	n	&ile	Fall	Winter	Spring
1	446	25th	4	7	9
		50th	6	12	14
		75th	11	17	19
2	91	25th	3	8	8
		50th	6	11	13
		75th	8	15	18
3	168	25th	3	6	9
		50th	5	9	12
		75th	8	13	18
4	131	25th	4	9	10
		50th	6	11	13
			8	14	17
5	150	25th	2	3	5
		50th	4	5	8
		75th	5	8	12
6	147	25th	4	4	5
		50th	5	5	7
		75th	7	8	11

Note. Data at Grades 5 and 6 come exclusively from high-poverty schools.